

## Request for cereal rust observations and samples

*(Please save this for future reference)*

The Cereal Disease Laboratory (CDL) is most interested in cereal rust observations and collections from rusted wheat, barley, oat, rye and grasses (stripe rust collections should be sent to [Dr. Xianming Chen](#)). Please follow the guidelines below to insure samples are viable when they reach the CDL or Dr. Chen.

### Cereal rust observations\*

If you have information on the cereal rust situation in your area that you would like to share, please email your observations to:

Mark Hughes ([Mark.Hughes@ars.usda.gov](mailto:Mark.Hughes@ars.usda.gov)) and David Long ([David.Long@ars.usda.gov](mailto:David.Long@ars.usda.gov))

Or, to: [CEREAL-RUST-SURVEY@LISTS.UMN.EDU](mailto:CEREAL-RUST-SURVEY@LISTS.UMN.EDU)

Or, if you prefer: call Dave (612-625-1284)

*We would like to include your name and email address so others can contact you. If, however, you prefer not having your name or email address appear with the information, please let us know when submitting your observations.*

### Information of most importance

We welcome any information you can provide, but are particularly interested in:

- Location (state, county, etc.)
- Rust (leaf rust, stem rust, stripe rust)
- Host (wheat, barley, oat, grasses, etc.)
- Cultivar or line name if known
- Severity and prevalence
- Growth stage -when the rust likely arrived, when infection was first noted and current growth stage
- Where rust is found on the plants, e.g., lower leaves, flag leaf, etc.

### Rust collections\*\*

Reports on the distribution of races of cereal rust fungi are an important part of our surveys. We regularly collect and test isolates of stem rust (wheat, oat, and barley), wheat leaf rust, and oat crown rust. We appreciate receiving collections of these rusts from cooperators around the U.S. If you can provide samples, please contact David Long ([David.Long@ars.usda.gov](mailto:David.Long@ars.usda.gov)) or Mark Hughes ([Mark.Hughes@ars.usda.gov](mailto:Mark.Hughes@ars.usda.gov)) and they will send you a packet of collection envelopes and forms.

### Guidelines for cereal rust uredinial collections

We are most interested in small grain collections (wheat, barleys, oat and rye), but are also interested in stem rust collections from grasses, e.g.:

Jointed goatgrass (*Aegilops cylindrica*)

Ryegrasses (*Elymus* spp.)

Wheatgrasses (*Elytrigia* spp.)

Wild barleys (*Hordeum* spp.)

Wild oat (*Avena fatua*)

Common grasses of *Agrostis*, *Festuca*, *Lolium*, and *Phleum*

1. Rust pustules should be fresh and fully developed, except when this may not be possible for the first uredinial collections found early in the season.
2. When rusted small grain or grass plants are encountered, cut 5 to 10 sections of plant stem or leaf, 4 inches long with large and small pustules and place in the glassine bag attached to the collection form. Do not staple or tape the glassine bag, instead fold the top shut.

3. Important information should be recorded, e.g., date, county, state, cultivar or line, crop stage, whether collection is from a nursery or commercial field, etc. If the grass genus or species is unknown to the collector, a head may be included with the stems or leaves in the glassine bag to aid in identification.
4. Avoid exposure of plant specimens to direct sunlight or unusual heat of any kind, e.g. car dashboard, outside mailboxes, etc. Samples should be air dried if very green or moist and kept as cool as possible (e.g. cooler and refrigerator). Please do not keep samples in a freezer and please send samples as soon as possible.
5. You should have on hand a copy of our permit to mail live plant parts. Permits can be obtained by contacting Jacki Morrison (jacki.morrison@ars.usda.gov).
6. Please promptly mail the collection form intact (several collections can be placed in an envelope) to:

Cereal Disease Laboratory, USDA-ARS  
1551 Lindig Street  
University of Minnesota  
St. Paul, Minnesota 55108

\*\* Stripe rust collections should be sent to:

Dr. Xianming Chen  
USDA-ARS  
361 Johnson Hall  
Washington State University  
Pullman, WA 99164-6430

**Thank you in advance for your assistance!**

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### **Current cereal rust situation**

For the latest cereal rust situation reports, please subscribe to the cereal rust survey listserv list. Instructions can be found at:

<http://www.lsoft.com/scripts/wl.exe?SL1=CEREAL-RUST-SURVEY&H=LISTS.UMN.EDU>

Or, if you prefer, simply send a message to Mark Hughes ([Mark.Hughes@ars.usda.gov](mailto:Mark.Hughes@ars.usda.gov)) and he will subscribe you to the list.

All messages sent to the list are archived on the CDL website:

<http://www.ars.usda.gov/Main/docs.htm?docid=9757>

### **Identifying rust diseases of wheat and barley**

A [guide](#) developed by the multi-state extension and research committees for small grain diseases, NCERA-184 & WERA-97, is available at:

[http://www.ars.usda.gov/SP2UserFiles/ad\\_hoc/36400500Publications/Rust\\_Diseases\\_National.pdf](http://www.ars.usda.gov/SP2UserFiles/ad_hoc/36400500Publications/Rust_Diseases_National.pdf)

\* The sole purpose of the Cereal Rust Survey listserv list is to provide a format for cereal researchers and extension personnel to share observations of cereal rusts and other cereal diseases. We make no warranty about any information shared on this listserv or its utility or applicability. Mention of any product, brand, or trademark does not imply endorsement or recommendation of that product, brand, or trademark by USDA-ARS, or any of the participants on this listserv. By enrolling on this listserv list, participants understand and agree to abide by these conditions.